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Version with Markings to Show Changes Made to Claims

Amend claims 1, 13 and 16 as follows:

1. (Thrice amended) A system for decoding a predetermined message symbol of a plurality of message symbols embedded in an audio signal, [the plurality of message symbols being contained within a predetermined message, the predetermined message symbol being represented by first and second code symbols displaced in time in the audio signal with at least one code symbol representing a different one of the message symbols positioned in time between the first and second code symbols,] comprising:

means for receiving an audio signal in which a plurality of message symbols have been incorporated so that the message symbols are inaudible when the audio signal is reproduced audibly, the plurality of message symbols being contained within a predetermined message as a plurality of code symbols, the predetermined message symbol being represented by first and second code symbols incorporated in and displaced in time in the audio signal with at least one code symbol representing a different one of the message symbols being incorporated in the audio signal and positioned in time between the first and second code symbols;

means for accumulating a first signal value of the first code symbol representing the predetermined message symbol and a second signal value of the second code symbol representing the predetermined message symbol; and

means for examining the accumulated first and second signal values to detect the predetermined message symbol represented by the first and second code symbols.

13. (Thrice Amended) A method for decoding a predetermined message symbol of a plurality of message symbols incorporated in an audio signal, [the plurality

of message symbols being contained within a predetermined message, the predetermined message symbol being represented by first and second code symbols displaced in time in the audio signal with at least one code symbol representing a different one of the message symbols positioned in time between the first and second code symbols,] comprising:

receiving an audio signal in which a plurality of message symbols have been incorporated so that the message symbols are inaudible when the audio signal is reproduced audibly, the plurality of message symbols being contained within a predetermined message as a plurality of code symbols, the predetermined message symbol being represented by first and second code symbols incorporated in and displaced in time in the audio signal with at least one code symbol representing a different one of the message symbols being incorporated in the audio signal and positioned in time between the first and second code symbols;

accumulating a first signal value of the first code symbol representing the predetermined message symbol and a second signal value of the second code symbol representing the predetermined message symbol; and

examining the accumulated first and second signal values to detect the predetermined message symbol.

16. (Twice Amended) A system for decoding a predetermined message symbol of a plurality of message symbols incorporated in an audio signal, [the plurality of message symbols being contained within a predetermined message, the predetermined message symbol being represented by first and second code symbols displaced in time in the audio signal with at least one code symbol representing a different one of the message symbols positioned in time between the first and second code symbols,] comprising:

an input device for an audio signal in which a plurality of message symbols have been incorporated so that the message symbols are inaudible when the audio signal is reproduced audibly, the plurality of message symbols being contained within a predetermined message as a plurality of code symbols, the predetermined message symbol being represented by first and second code symbols incorporated in and displaced in time in the audio signal with at least one code symbol representing a different one of the message symbols being incorporated in the audio signal and positioned in time between the first and second code symbols; and

[an input device for receiving the first code symbol representing the predetermined message symbol and the second code symbol representing the predetermined message symbol; and]

a digital processor in communication with the input device to receive the audio signal [data] therefrom [representing the first and second code symbols], the digital processor being programmed to accumulate a first signal value representing the first code symbol and a second signal value representing the second code symbol, the digital processor being further programmed to examine the accumulated first and second signal values to detect the predetermined message symbol.

Remarks

In light of the foregoing Amendment and the remarks to follow, reconsideration is respectfully requested.

Drawings

Please cancel drawing 1-10 and amend the application to incorporate formal drawings 1-10 included with this response and found in the document entitled, **Transmittal of Formal Drawings.**

Rejection under Section 102

The Examiner has rejected claims 1 to 3, 7 to 9, 13 and 16 under 35 U.S.C. §102(e) as anticipated by Haartsen, U.S. Patent No. 5,960,048. MPEP §2131 states that to anticipate a claim, the reference must teach every element of the claim.

The present invention operates in an environment in which two information streams are simultaneously communicated from a coder in the form of a combined signal comprising one audible information stream accompanied by a second information stream that is inaudible. Also, the inaudible information stream, since it is inaudible, does not perceptibly affect the audible information stream when the combined streams are reproduced acoustically even though the inaudible information stream is overlain by the audible information stream in a single combined signal. Moreover, the present invention can decode a message contained in the inaudible stream that did not perceptibly impact the message conveyed by the audible stream.

In contraposition, Haartsen operates in an environment in which two information streams are broadcasted at separate times. This is demonstrated in Haartsen at column 5 lines 25 to 37 in which a correlation sequence or signature sets up a communications link to receive a subsequently transmitted message in a radio signal.

Accordingly, Haartsen merely teaches how a communication link may be set up to receive a signal that is solely comprised of one information stream and not two simultaneously present information streams as is found in the present invention. Consequently, Haartsen cannot decode a first information stream in a single signal that is composed of two information streams that are simultaneously present in the single signal. This is true because Haartsen is designed to decode a signature in a signal that contains only one information stream at a time in which a first received message, when decoded, sets up the reception of a second received message that is not included simultaneously with the first message. Furthermore, Haartsen never teaches or suggests that a message and an audio signal can be combined into one signal simultaneously carrying both the audio signal and the message which is decoded from the single signal that simultaneously carries these two information streams.

From the foregoing, it is clear that the present invention is drawn and applied to an entirely different field of technology than Haartsen. To more particularly point out these distinctions we have amended the claims to include language which will unambiguously highlight these distinctions.

In claim 1, "means for receiving an audio signal in which a plurality of message symbols have been incorporated so that the message symbols are inaudible when the audio signal is reproduced audibly, the plurality of message symbols being contained within a predetermined message as a plurality of code symbols, the predetermined message symbol being represented by first and second code symbols incorporated in and displaced in time in the audio signal with at least one code symbol representing a different one of the message symbols being incorporated in the audio signal and positioned in time between the first and second code symbols," is not an element taught by Haartsen because Haartsen does not teach how to incorporate an inaudible information stream into an audible signal thereby forming one signal simultaneously carrying two information streams. Simultaneously carrying two information streams means that one information stream overlays the other and both information streams are

present at the same time when a discrete segment of the signal is examined. Also, Haartsen does not teach a message symbol including two code symbols separated in time by another code symbol within the same audio signal but representing a different message symbol. Since neither of these elements is taught by Haartsen, the §102(e) rejection is therefore traversed.

In claim 13, "receiving an audio signal in which a plurality of message symbols have been incorporated so that the message symbols are inaudible when the audio signal is reproduced audibly, the plurality of message symbols being contained within a predetermined message as a plurality of code symbols, the predetermined message symbol being represented by first and second code symbols incorporated in and displaced in time in the audio signal with at least one code symbol representing a different one of the message symbols being incorporated in the audio signal and positioned in time between the first and second code symbols," is not an element taught by Haartsen because Haartsen does not teach how to incorporate an inaudible information stream into an audible signal thereby forming one signal simultaneously carrying two information streams. Simultaneously carrying two information streams means that one information stream overlays the other and both information streams are present at the same time when a discrete segment of the signal is examined. Also, Haartsen does not teach a message symbol including two code symbols separated in time by another code symbol within the same audio signal but representing a different message symbol. Since neither of these elements is taught by Haartsen, the §102(e) rejection is therefore traversed.

And in claim 16, "an input device for an audio signal in which a plurality of message symbols have been incorporated so that the message symbols are inaudible when the audio signal is reproduced audibly, the plurality of message symbols being contained within a predetermined message as a plurality of code symbols, the predetermined message symbol being represented by first and second code symbols incorporated in and displaced in time in the audio signal with at least one code symbol

representing a different one of the message symbols being incorporated in the audio signal and positioned in time between the first and second code symbols," is not an element taught by Haartsen because Haartsen does not teach how to incorporate an inaudible information stream into an audible signal thereby forming one signal simultaneously carrying two information streams. Simultaneously carrying two information streams means that one information stream overlays the other and both information streams are present at the same time when a discrete segment of the signal is examined. Also, Haartsen does not teach a message symbol including two code symbols separated in time by another code symbol within the same audio signal but representing a different message symbol. Since neither of these elements is taught by Haartsen, the §102(e) rejection is therefore traversed.

Accordingly, it is respectfully submitted that claims 1, 13 and 16 are not anticipated by Haartsen. Since all the remaining claims depend from one of claims 1, 13 and 16, it is respectfully submitted that all of the claims in the present application are in condition for allowance.

Rejection under Section 103

The Examiner has rejected claims 4 to 6, 10 to 12, 14, 15, 17 and 18 under 35 U.S.C. §103(a) as being unpatentable over Haartsen in view of Jensen et al., U.S. Patent No. 5,450,490. These rejections are respectfully traversed.

Claims 4 to 6, 10 to 12, 14, 15, 17 and 18 are dependent claims that refer back to independent claims 1, 13 and 16. Since claims 1, 13 and 16 are allowable, as demonstrated above, these dependent claims are likewise in condition for allowance.

LeFever Reference

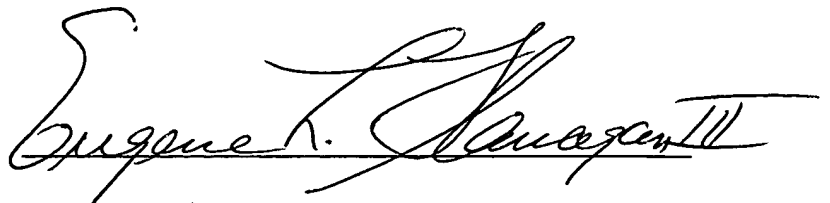
It should also be noted that the LeFever reference as noted by the Examiner on page 11 of the outstanding Office Action will not impact the patentability of the present

invention because LeFever differs in two primary ways. First, LeFever deals with a packetized method of information delivery as is evidenced in Figure 1, and column 3 lines 53 to 68, and column 4 lines 1 to 23, which is in direct contrast to the present invention that delivers two streams of information simultaneously through a single signal as was discussed above. And secondly, the PN sequence in LeFever is a known quantity and serves as a reference for the system. In the present invention, neither information stream is known as LeFever's PN sequence is known and so has to be decoded. What is known in the present invention is the code symbols which are used by the decoder to decode the inaudible message contained in the audible signal that carries it.

Conclusion

Accordingly, it is respectfully submitted that all of claims 1-18 are patentably distinct and in condition for allowance. Early and favorable consideration hereof is solicited.

Respectfully submitted,

A handwritten signature in cursive script, reading "Eugene L. Flanagan III". The signature is written in dark ink and is positioned above the printed name.

Eugene L. Flanagan III, Registration No.
27,634

Attorney for Applicant

ST.ONGE STEWARD JOHNSTON & REENS LLC

986 Bedford Street

Stamford, CT 06905-5619

203 324-6155